REMARKS

According to the Office Action, claim 1 is objected to because the phrase on line 4 "a plurality of first metal floods" should read --a first plurality of metal floods--, and the phrase on line 7 "a plurality of second metal floods" should read --a second plurality of metal floods--. In response, claim 1 is amended accordingly.

According to the Office Action, claims 26-27 are objected to because they depend on cancelled claims. In response, claims 26-27 are cancelled herein.

According to the Office Action, claims 1, 2, 5-7, 9, 12-14, and 22-25 stand rejected under 35 U.S.C. 112, second paragraph, for allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter of the invention. More specifically, it is alleged that there is a lack of structural cooperative relationship in claims 1 and 9 as to how one plane is related to the other, and how the planes are separated. It is further alleged that there needs to be a material between the planes in order to support the via through hole. In addition, it is alleged that claim 25 is unclear regarding if there is a second dielectric layer or if it is merely repeating the formation of the dielectric layer claimed in claim 1.

In response, independent claims 1 and 8 are amended to recite "a dielectric material having a first plane and a second plane opposite the first plane" and to also recite that the "plurality of plated holes are formed through the dielectric material." Thus, this amendment to claims 1 and 8 make it clear how the first and second planes are related to each other as well as how the planes are separated from each other. With regard to the objections to claims 23 and 25, these claims are amended to further recite "a second dielectric material on said first plane of said dielectric material, and a third dielectric material disposed on said second plane of said material." The inclusion of the second and third dielectric material make it clear that the capacitance is a buried intersignal capacitance.

According to the Office Action, claims 1-2, 5-9, 12-14, 22-25, 28-30, 32, 33, and 37-40 stand rejected under 35 U.S.C. 102(b) for allegedly being anticipated by U.S. Patent No. 5,663,870 issued to Kerndlmaier. Claims 23, 25, and 32-33 are further rejected under 35 U.S.C. 103(a) for allegedly being unpatentable over the Kerndlmaier Patent in view of U.S.

Patent No. 5,475,262 issued to Wang et al. For the following reasons, these rejections are respectfully traversed.

With regard to the Kerndlmaier Patent, it is alleged in the Office Action that the "first signal path (reference number 25) is connected to a first plane (conductive plane on surface 40) via a plurality of plated holes (reference numbers 36 and 39)." This allegation is respectfully traversed since it is clear from Figure 3 that the alleged first signal path 25 is not connected to plated hole 39.

It is also alleged in the Office Action that "a plurality of first metal floods (reference numbers 33, and 23) is connected to the plated holes [reference numbers 36 and 39] to form a plurality first plates." This allegation is further traversed since first metal flood 33 is connected to plated hole 37, which is not connected to the first signal path 25 in accordance with the claims (see Figure 4). In addition, the other first metal flood 23 is connected to plated hole 39, which is not connected tot he first signal path 25 in accordance with the claims (see Figure 4).

In view of the foregoing amendments and remarks, allowance of this patent application is respectfully requested.

VERSION WITH MARKING OT SHOW CHANGES MADE

Please cancel claims 22, 24, and 26-27 without prejudice.

Please amend claims 1, 8, 23, and 25 as follows:

1. (Currently Amended) An apparatus comprising:

a dielectric material having a first plane and a second plane opposite the first plane;

a first signal path connected to ~~a~~ said first plane via a plurality of plated holes formed through the dielectric material at different locations along said first signal path, the first signal path on a said second plane;

a first plurality of ~~first~~ metal floods connected to the respective plated holes to form a plurality first plates, the first metal floods on the first plane;

a second signal path on the second plane; and

a second plurality ~~second~~ metal floods connected to the second signal path to form a plurality of second plates above the respective first plates, the second plate on the second plane.

2. (Previously Amended) The apparatus of claim 1 wherein each set of first and second plates form a capacitance.

3. (Cancelled)

4. (Cancelled)

5. (Previously Amended) The apparatus of claim 1 wherein the first and second signal paths are adjacent to each other.

6. (Previously Amended) The apparatus of claim 1 wherein the first plane is a ground plane or a power plane.

7. (Previously Amended) The apparatus of claim 6 wherein each of the first metal floods is an isolated area in the first plane.

8. (Currently Amended) A method comprising:

providing a dielectric material having a first plane and a second plane opposite the first plane;

connecting a first signal path to a said first plane via a plurality of plated holes formed through the dielectric material at different locations along said first signal path, the first signal path on a said second plane;

forming a plurality of first plates by connecting a plurality of first metal floods to the respective plated holes, the first metal floods on the first plane; and

connecting a plurality of second metal flood to a second signal path on the second plane to form a plurality of second plates above the respective first plates; and

~~a dielectric material between the first plane and the second plane through which the plated holes extend~~.

9. (Original) The method of claim 8 wherein the first and second plates form a capacitance.

10. (Cancelled)

11. (Cancelled)

12. (Previously Amended) The method of claim 8 wherein the first and second signal paths are adjacent to each other.

13. (Previously Amended) The method of claim 8 wherein the first plane is a ground plane or a power plane.

14. (Previously Amended) The method of claim 13 wherein each of the first metal floods is an isolated area in the first plane.

15. (Cancelled)

16. (Cancelled)

17. (Cancelled)

18. (Cancelled)

19. (Cancelled)

20. (Cancelled)

21. (Cancelled)

22. (Cancelled)

23. (Currently Amended) The apparatus of claim 2 further comprising a second dielectric material disposed on said first plane of said dielectric material and a third dielectric disposed on said second plane of said dielectric material, wherein the capacitance is a buried intersignal capacitance.

24. (Cancelled)

25. (Currently Amended) The method of ~~cliam~~ claim 9 forming a second dielectric material on said first plane of said dielectric material, and forming a third dielectric material on said second plane of said dielectric material, wherein the capacitance is a buried intersignal capacitance.

26. (Cancelled)

27. (Cancelled)

28. (Previously Amended) An apparatus comprising:

a printed circuit board;

a first transmission line on a first layer of the printed circuit board;

a second transmission line on the first layer of the printed circuit board; and

a plurality of capacitors connected to the first transmission line and the second transmission line at different locations, each of the capacitor comprising:

a first plate connected to the first transmission line by a plated hole, the first plate on a second layer of the printed circuit board;

a second plate connected to the second transmission line, the second plate on the first layer of the printed circuit board; and

a dielectric layer between the first plate and the second plate, the dielectric layer between the first layer of the printed circuit board and the second layer of the printed circuit board.

29. (Previously Added) The apparatus of claim 28 wherein the first plate is above the second plate.

30. (Previously Added) The apparatus of claim 28 wherein the second plate is above the first plate.

31. (Previously Added) The apparatus of claim 28 wherein the capacitor is a buried intersignal capacitor.

32. (Previously Added) The apparatus of claim 31 wherein the buried intersignal capacitor mode compensates to improve signal quality in the printed circuit board.

33. (Previously Added) The apparatus of claim 32 wherein the buried intersignal capacitor matches the propagation speed of odd-mode switch signals with the propagation speed of even-mode switch signals.

34. (Cancelled)

35. (Cancelled)

36. (Cancelled)

37. (Previously Added) The apparatus of claim 28 wherein the first transmission line is adjacent to the second transmission line.

38. (Previously Added) The apparatus of claim 28 wherein the first transmission line is inductively coupled to the second transmission line.

39. (Previously Added) The apparatus of claim 28 wherein the first transmission line and/or second transmission line are routed as microstrips.

40. (Previously Added) The apparatus of claim 28 wherein first transmission line and the second transmission line are routed on surface layers of the printed circuit board.

CONCLUSION

In view of the amendments and remarks made above, it is respectfully submitted that pending claims 1-2, 5-9, 12-14, 23, 25, 28-33, and 37-40 are in condition for allowance, and such action is respectfully solicited.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

Dated: May 20, 2003

GEORGE L. FOUNTAIN
Reg. No. 36,374

12400 Wilshire Boulevard, Seventh Floor
Los Angeles, California 90025
(714) 557-3800

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231 on: May 20, 2003.

Laura Robles 5/20/03
Date